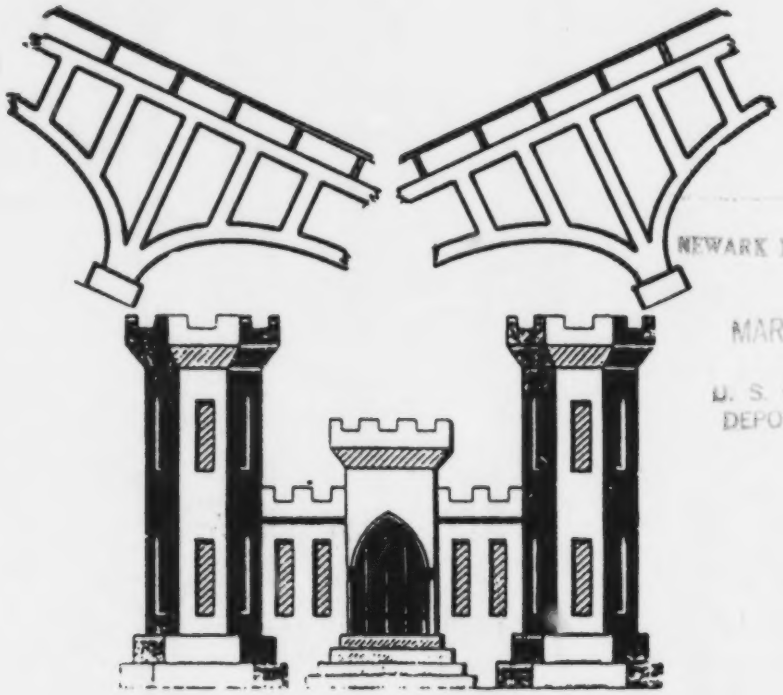
B 74

BRIDGE DEMOLITION DOCTRINE



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Field Engineering
Student Workbook
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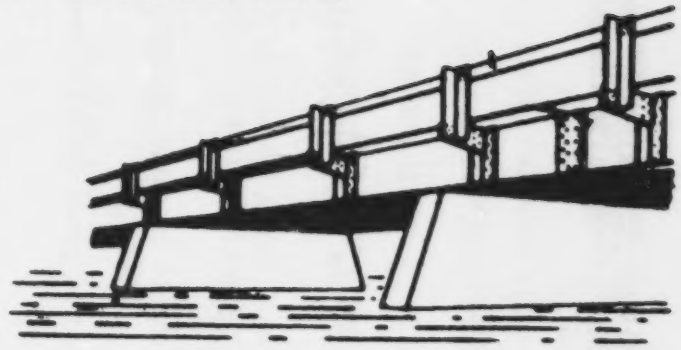
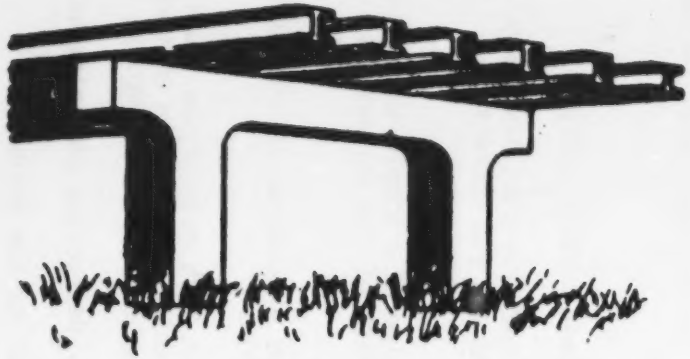
D103. 120:

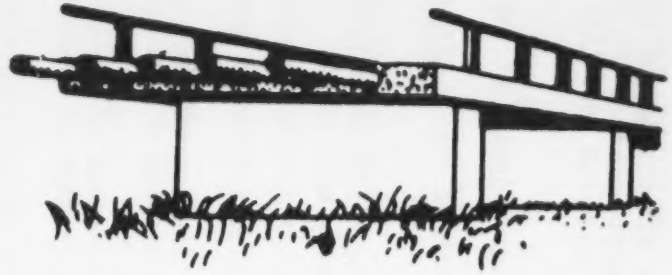
READEX FICHE best copy available

OBJECTIVE
BRIDGE DEMOLITION DOCTRINE



Plan , Organize , and Supervise





DESTRUCTION of BRIDGES

IAW FM 5-25

BRIDGE DEMO

1. During the preparation of the bridge demolition reconnaissance report for a bridge you must estimate the size and placement of explosive charges needed for the job. On which does this largely depend?

   a. Characteristics of the individual bridge structure

   b. Sketch of firing circuits

2. In planning bridge demolitions, which one of the following principles should you employ most often?

   a. Destruction rather than damage is sought

   b. Destruction of compression members should be given priority over destruction of tension members.

   c. Destruction of tension members should be given priority over destruction of compression members.

   d. Hasty charge placement is unrelated to deliberate preparation.

3. What is the most economical method of destroying a simple span steel truss bridge?

   a. Steel cutting charges

   b. Attack the cantilever arm and the pin connection

   c. Rotation

   d. Scissors method

4. Destruction of a simple span bridge may be accomplished by several methods. Which of the following is such a method?

   a. Cut at midspan allowing the bridge to buckle and fall into the river below.

   b. Cut both ends of the truss or girder on the upstream side of the bridge close to the abutment allowing it to fall into the water. The current will complete the destruction.

   c. By destroying each alternate pier.

   d. All of the above.

5. There are two states of readiness for a bridge demolition - safe and armed. Under what conditions is it considered armed?

a. Firing circuits all prepared

b. Charges are fixed into position

c. The demolition could be fired immediately

d. Detonating cord primers are attached to charges

6. Which of the follwoing forms is used to record and repoet the reconnaissance of a military demolition project?

a. DA Form 1355

b. DA Form 2050-R

c. DA Form 1711-R

d. DA Form 2203-R

1. BRIDGE DOCTRINE PRINCIPLES

a. Architectural principle

b. Identify the critical points

c. Complete destruction is seldom necessary

d. One shot affair

e. Careful planning and reconnaissance

2. PLANNING CONSIDERATIONS

a. The mission of the command

b. Limitations and instructions of higher authority

c. The current tactical strategical situation

d. Enemy capabilities and limitations

e. Reoccupation

f. Results to be obtain (economy)

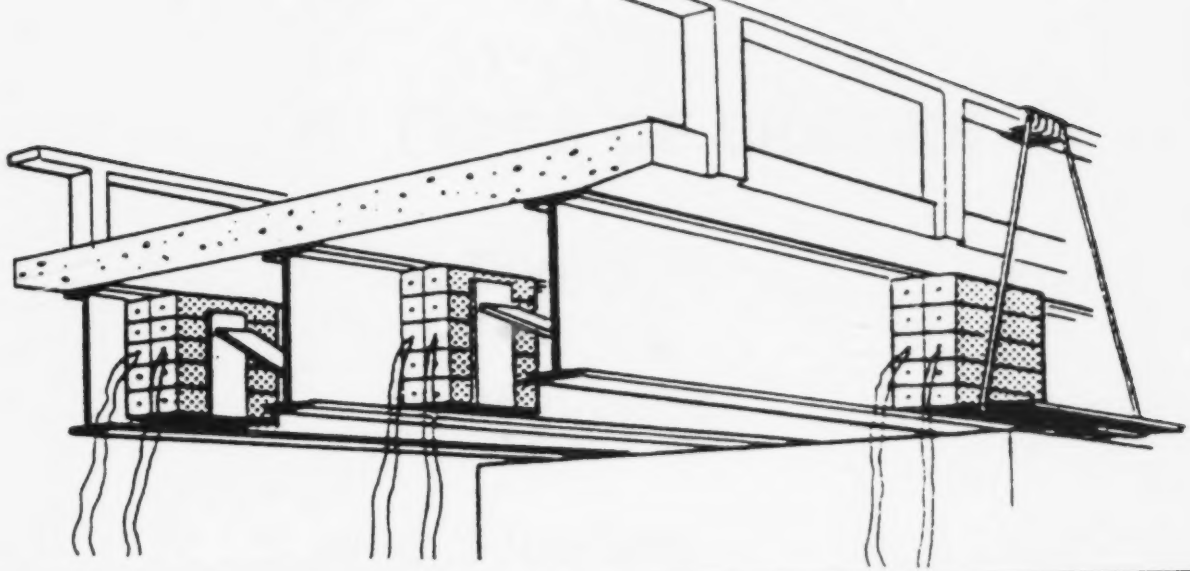
(1) Complete destruction

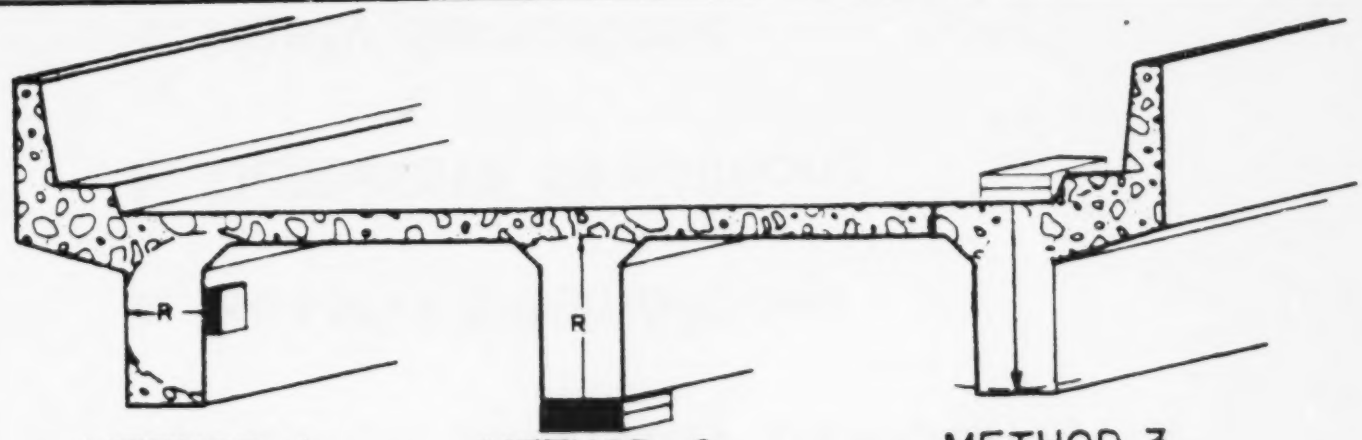
(2) Partial destruction

g. Time, material, labor, and equipment

h. Local population

i. Protection required





METHOD 1

SIDE BREACHING CHARGE

METHOD 2

BOTTOM BREACHING CHARGE

METHOD 3

BREACHING CHARGE

3. TYPES OF MILITARY DEMOLITIONS

a. Reserved demolitions

b. Deliberate demolitions

c. Hasty demolitions

4. TYPES OF BRIDGES

a. Fixed

b. Movable

c. Floating

5. PARTS OF BRIDGES

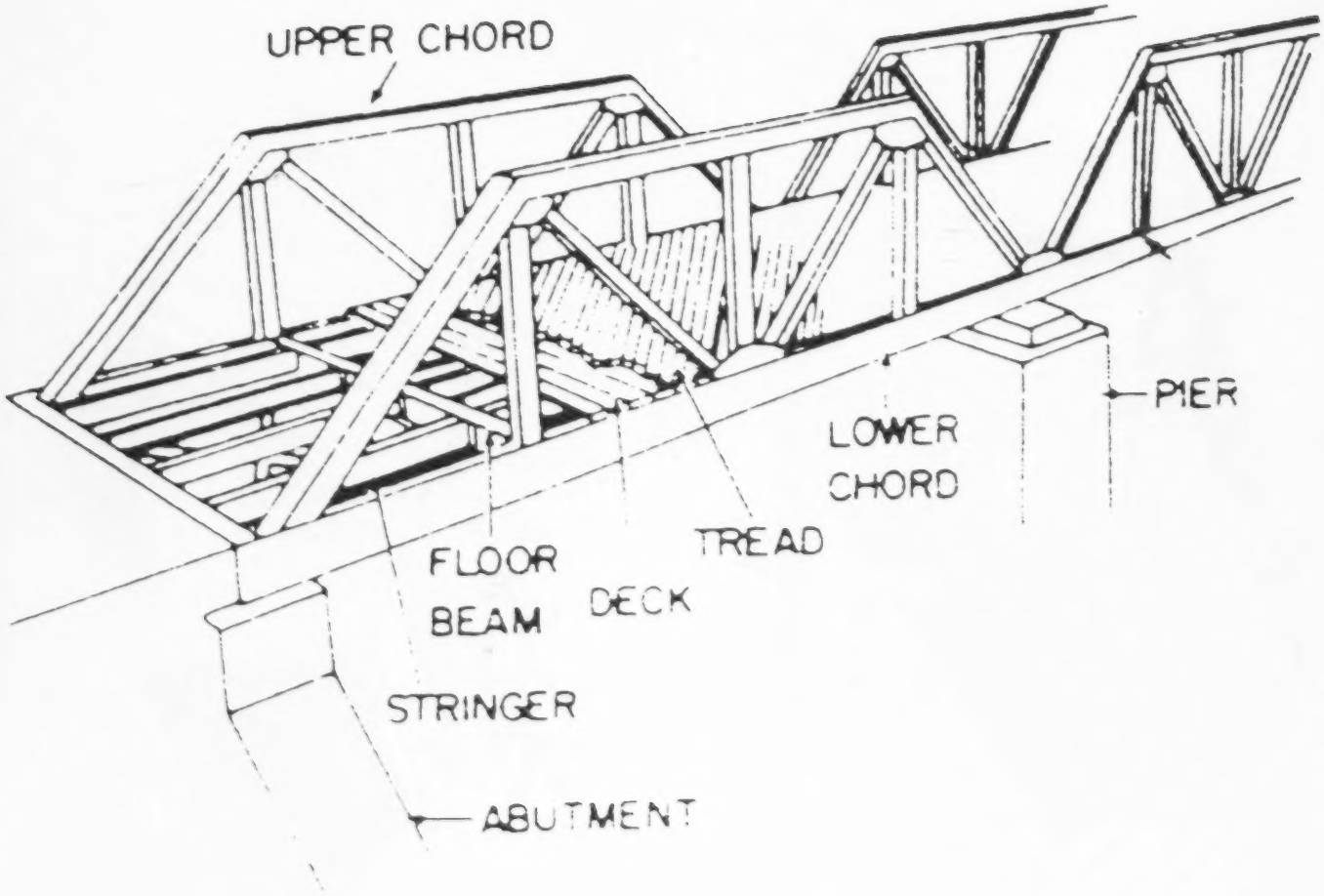
a. Substructure

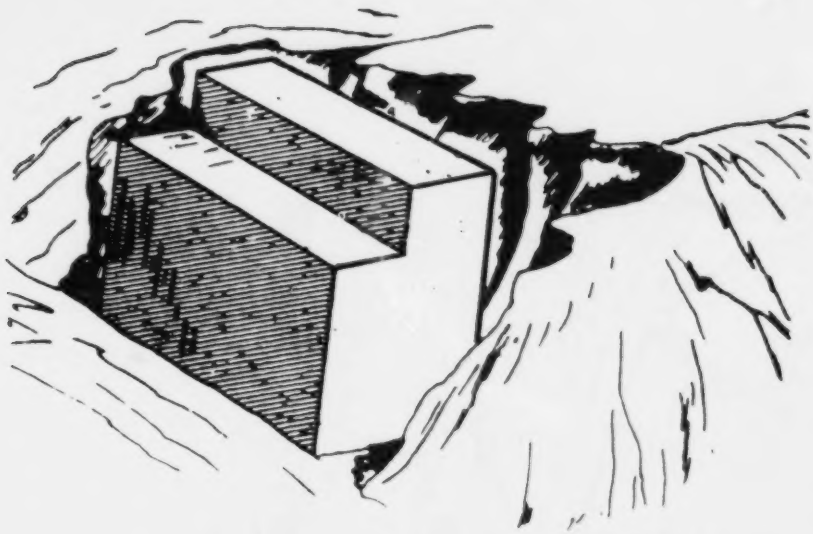
(1) Abutments
(2) intermediate supports

b. Superstructure

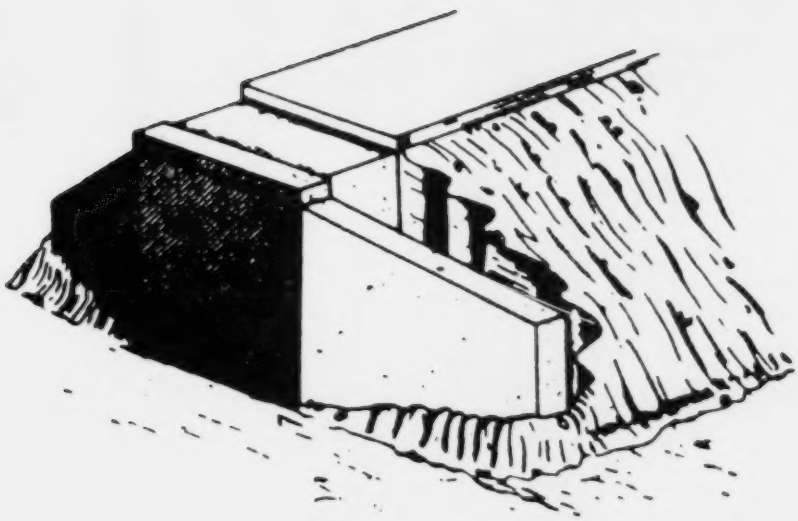
(1) Stringers
(2) Girders
(3) Trusses

(a) Lower chord
(b) Upper chord

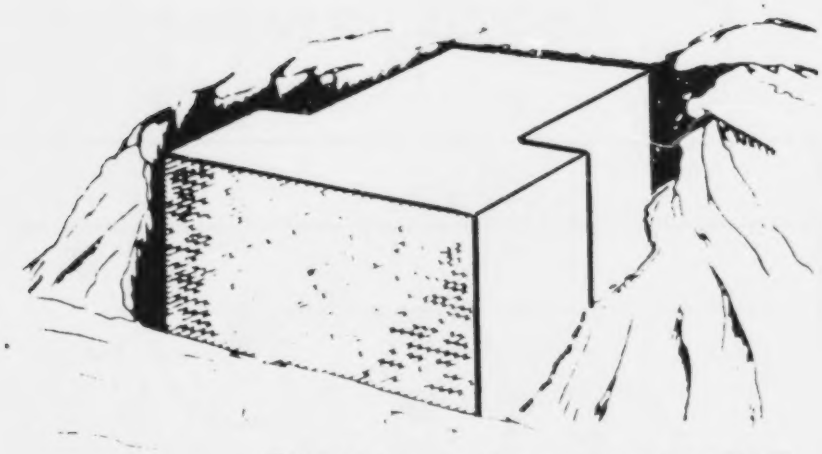

UPPER CHORD
PIER
LOWER
CHORD
TREAD
FLOOR
BEAM
DECK
STRINGER
ABUTMENT



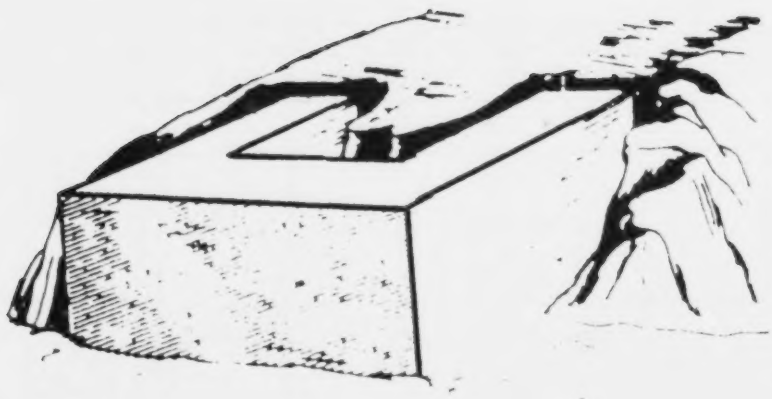
TYPICAL STRAIGHT ABUTMENT



TYPICAL WING TYPE ABUTMENT.

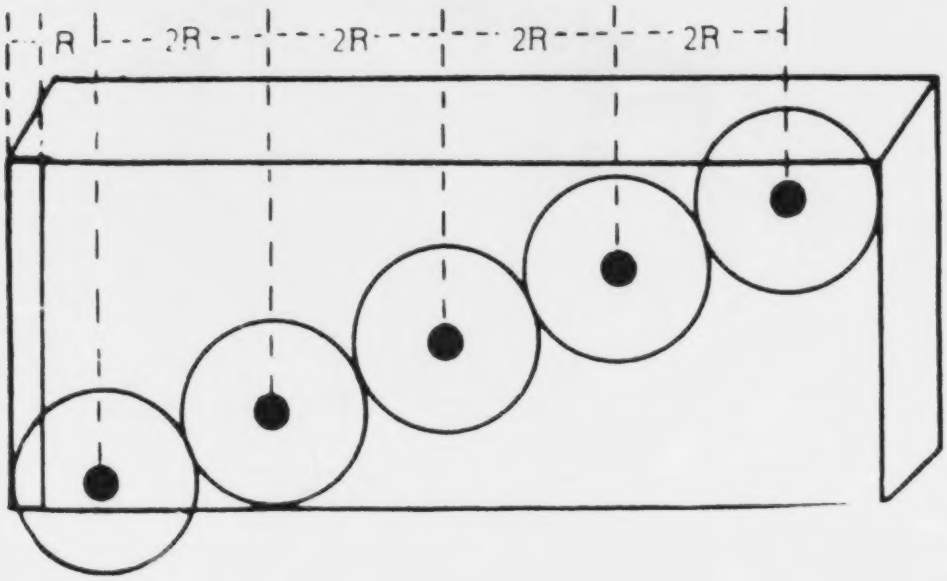


TYPICAL T -TYPE ABUTMENT

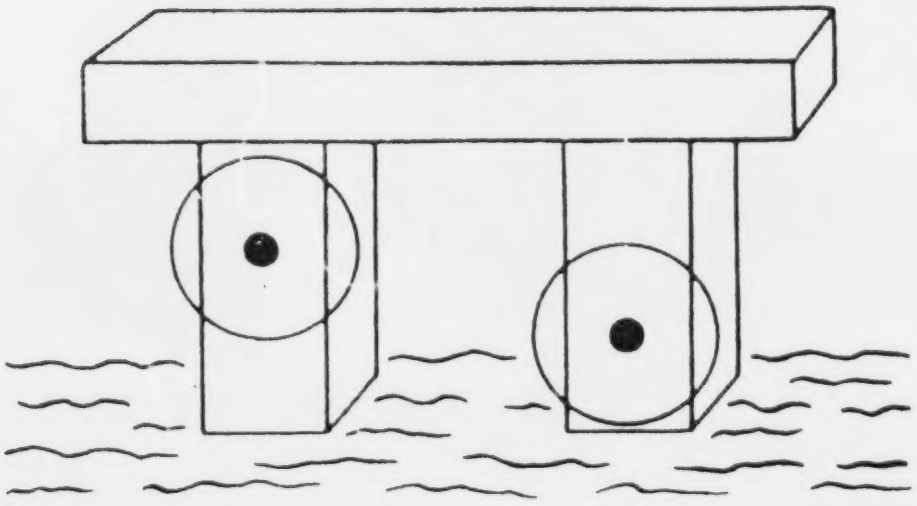


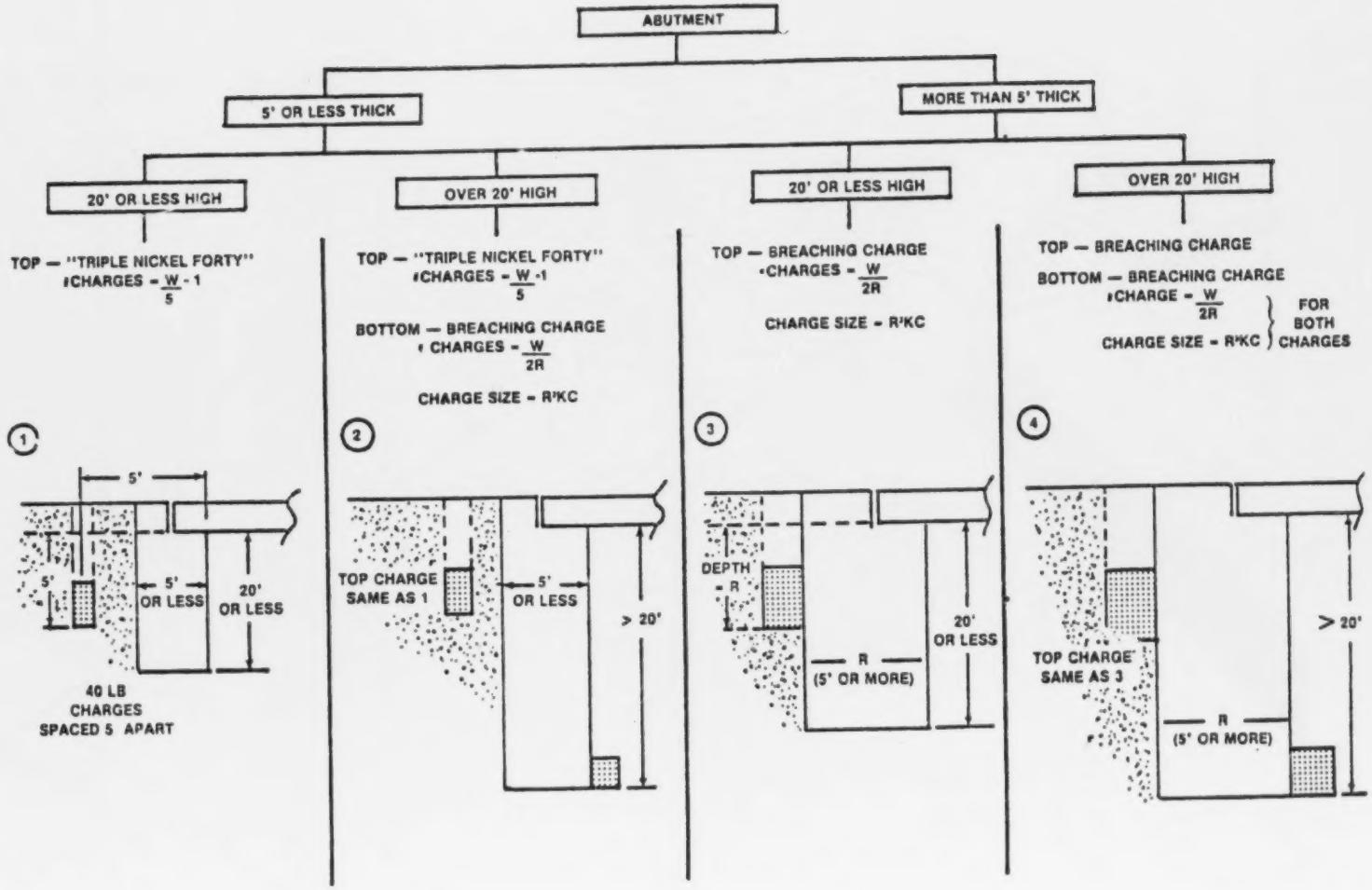
TYPICAL U TYPE ABUTMENT

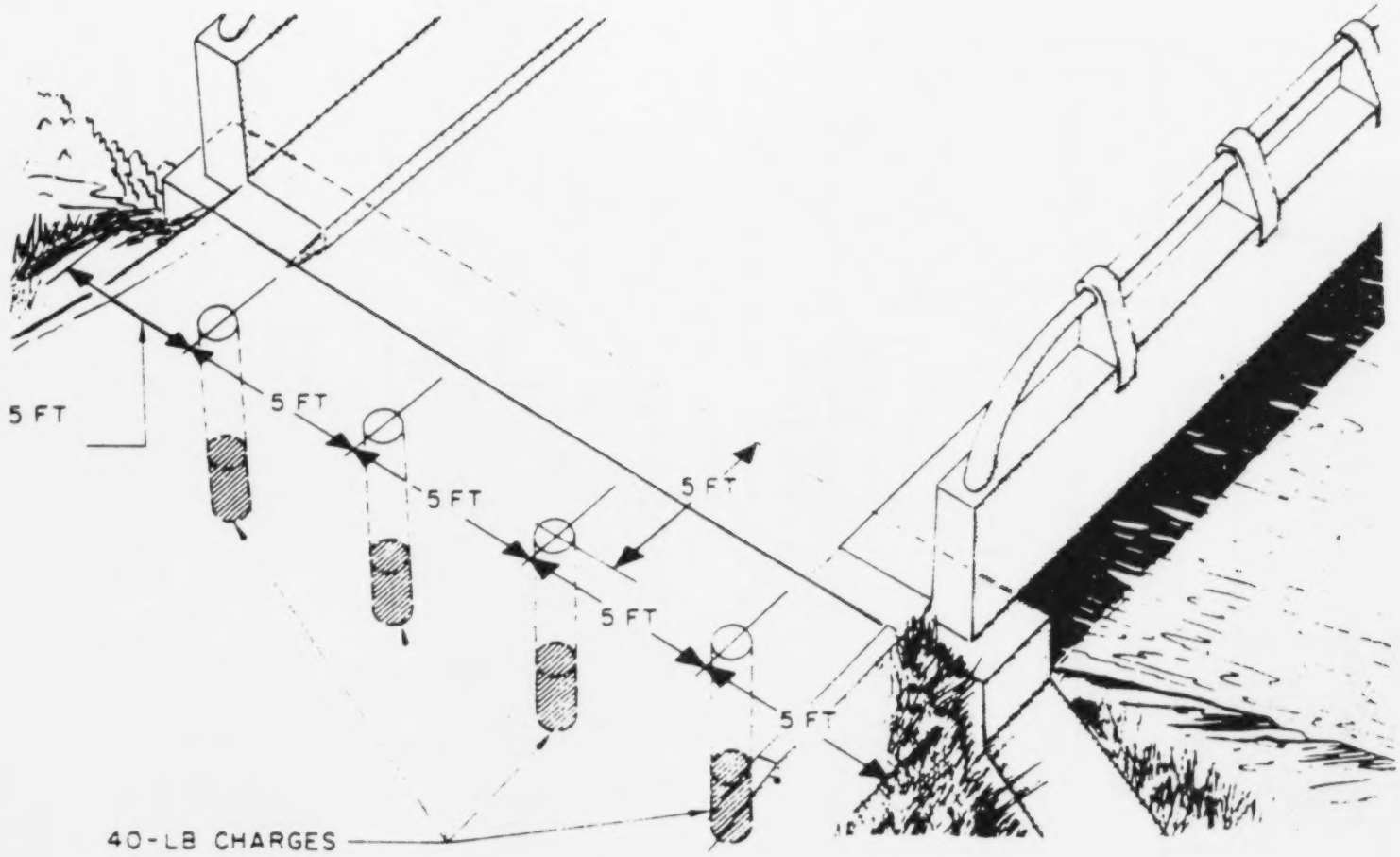
CONCRETE AND MASONRY PIERS



OPEN TYPE CONCRETE PIER




ABUTMENT
5' OR LESS THICK
MORE THAN 5' THICK
20' OR LESS HIGH
OVER 20' HIGH
20' OR LESS HIGH
OVER 20' HIGH
TOP — "TRIPLE NICKEL FORTY"
#CHARGES = W/5 - 1
TOP — "TRIPLE NICKEL FORTY"
#CHARGES = W/5 -1
BOTTOM — BREACHING CHARGE
CHARGES = W/2R
CHARGE SIZE = R²KC
TOP — BREACHING CHARGE
#CHARGES = W/2R
CHARGE SIZE = R²KC
TOP — BREACHING CHARGE
BOTTOM — BREACHING CHARGE
#CHARGE = W/2R
CHARGE SIZE = R²KC
FOR BOTH CHARGES
1
2
3
4
5'
5'
5' OR LESS
20' OR LESS
40 LB CHARGES SPACED 5 APART
TOP CHARGE SAME AS 1
5' OR LESS
> 20'
DEPTH = R
R (5' OR MORE)
20' OR LESS
TOP CHARGE SAME AS 3
R (5' OR MORE)
> 20'

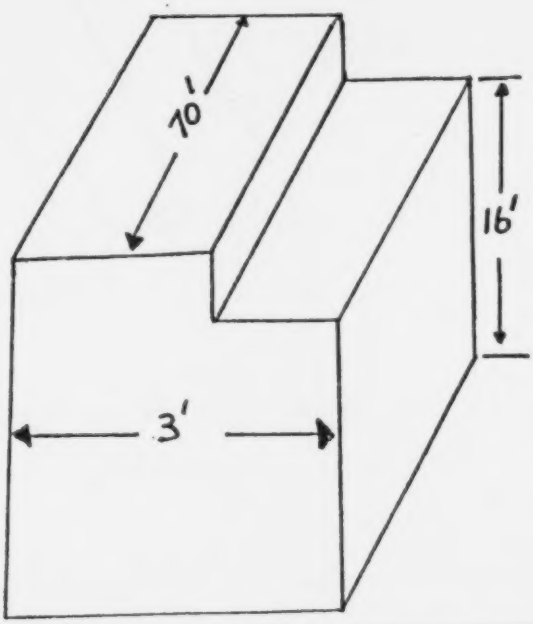


PLACEMENT OF THE 5–5–5–40 CHARGE

KNOWN INFORMATION

TYPE OF CONCRETE

EXPLOSIVE



1.

2.

3.

4.

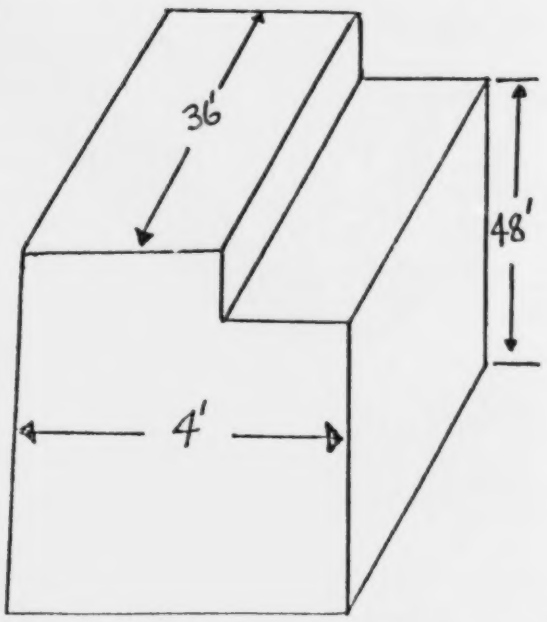
5.

6.

KNOWN INFORMATION

TYPE OF CONCRETE

EXPLOSIVE



1.

2.

3.

4.

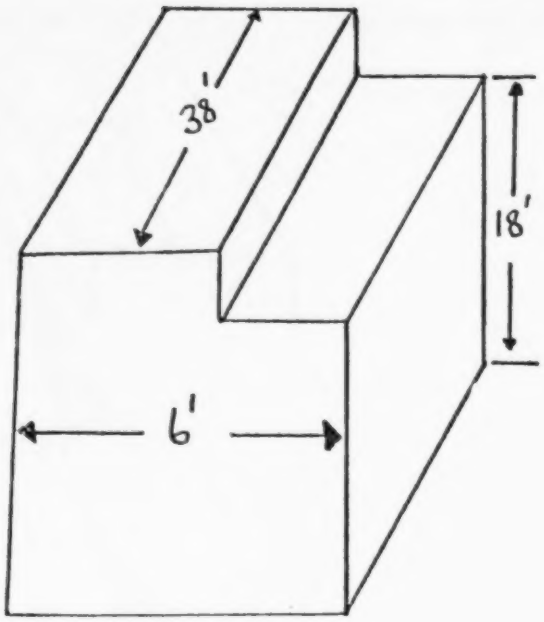
5.

6.

KNOWN INFORMATION

TYPE OF CONCRETE

EXPLOSIVE



1.

2.

3.

4.

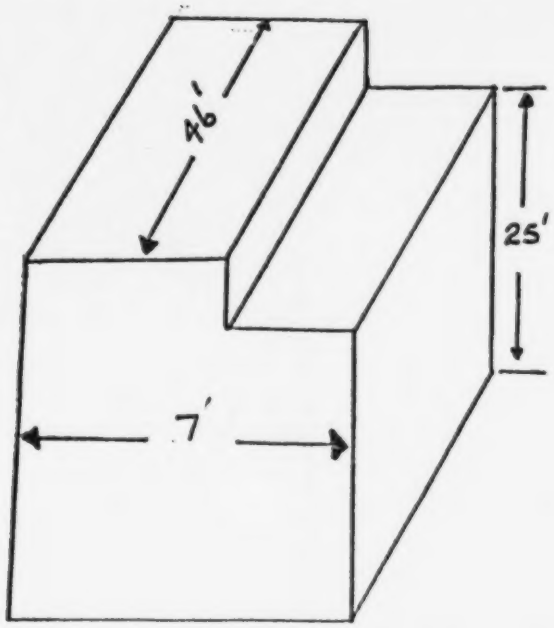
5.

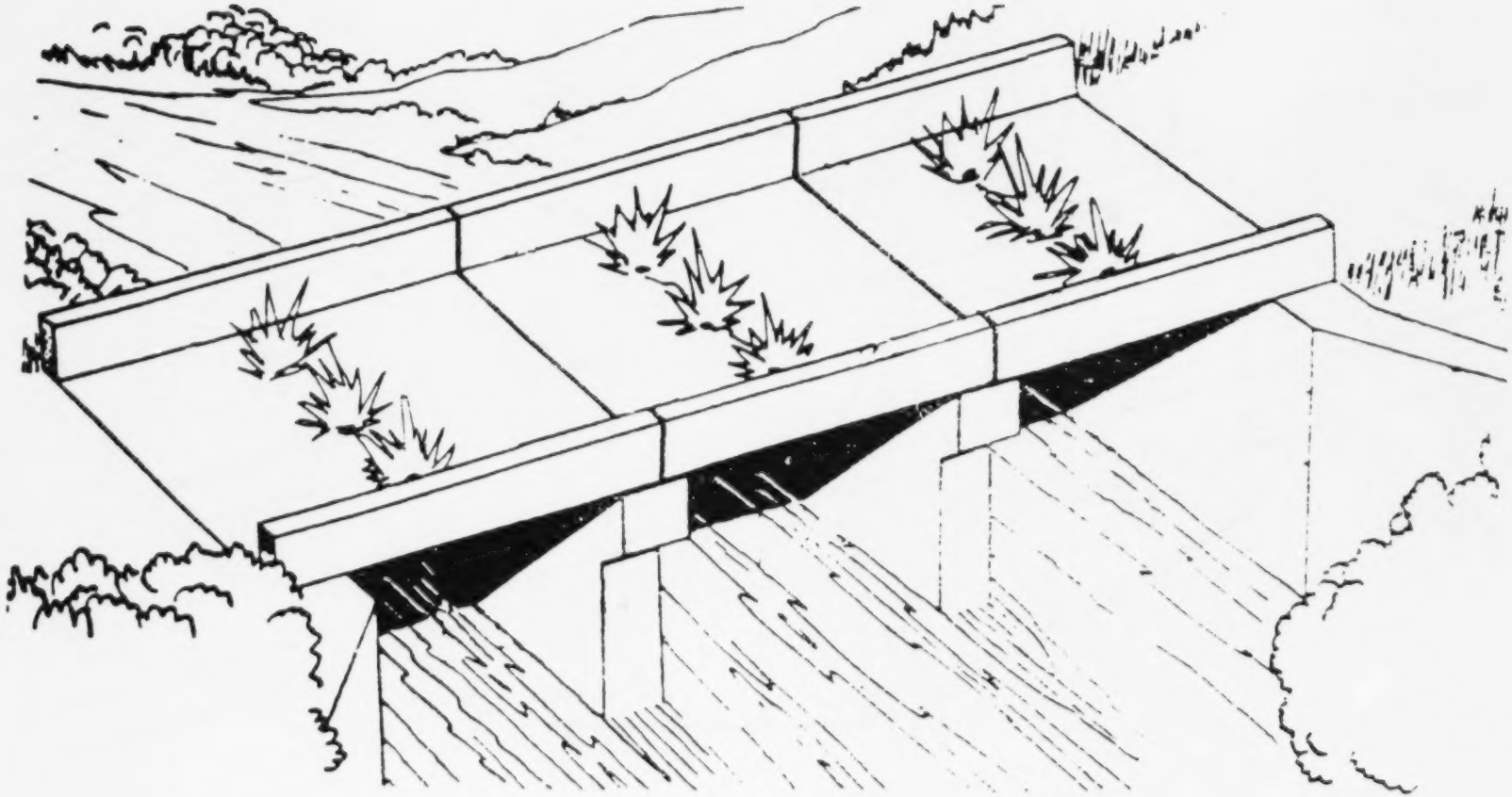
6.

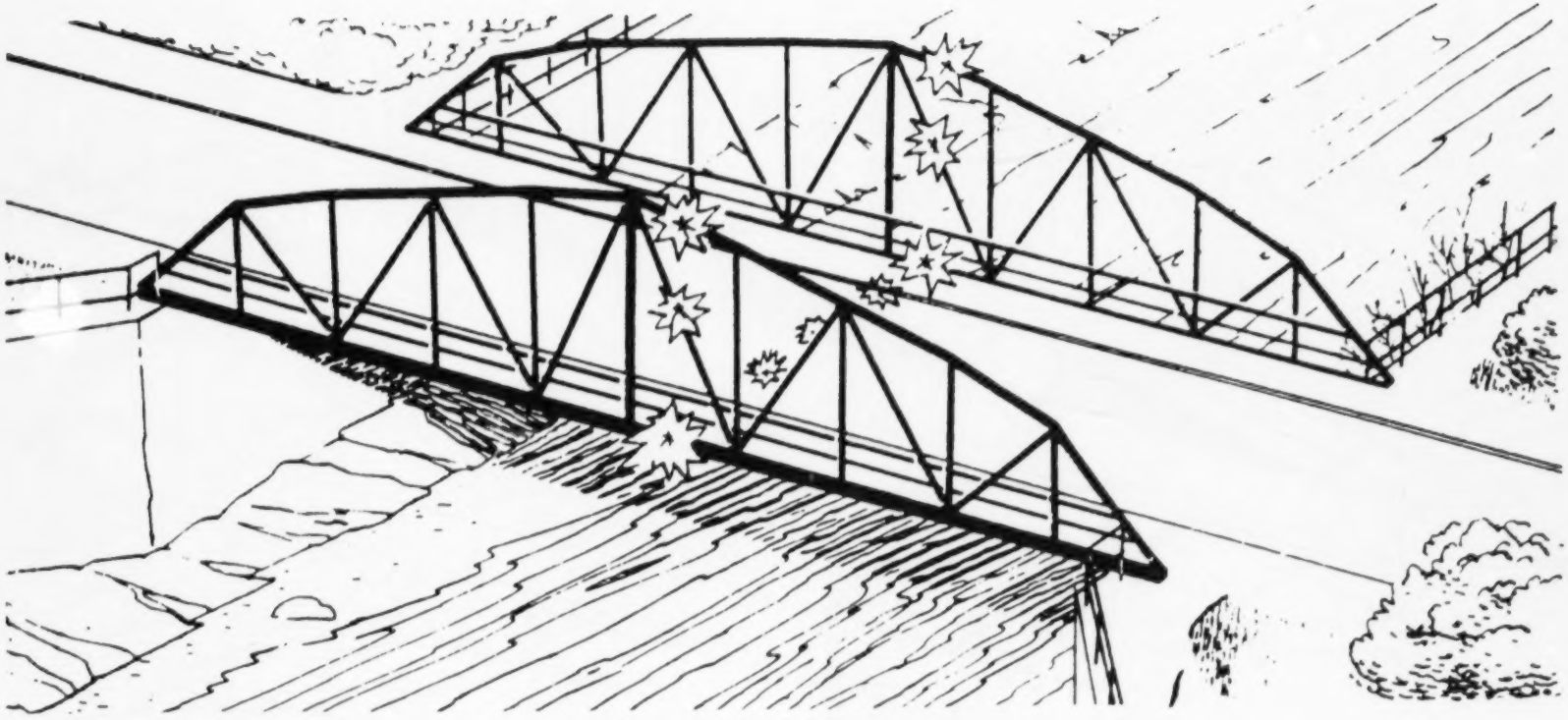
KNOWN INFORMATION

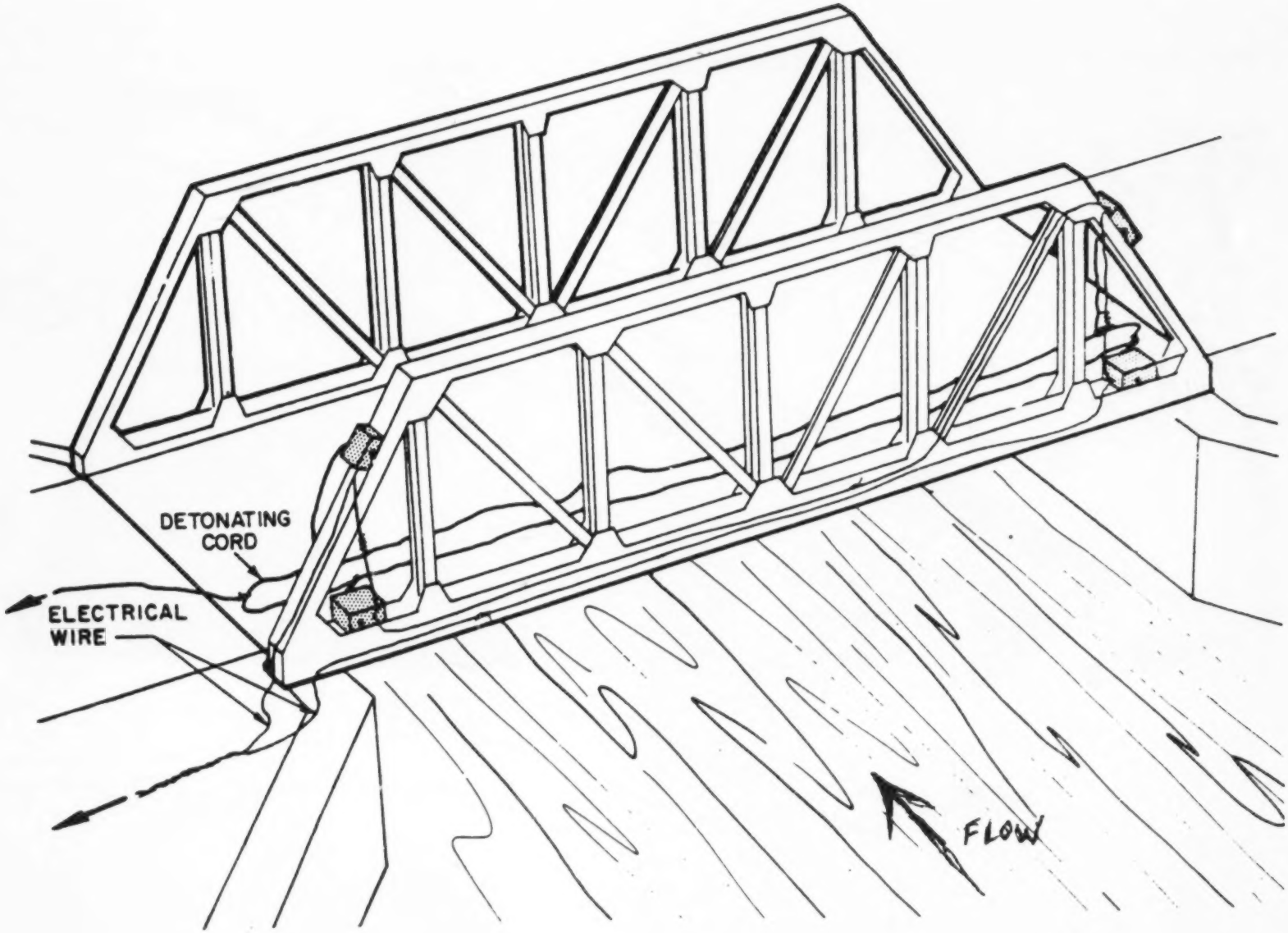
TYPE OF CONCRETE

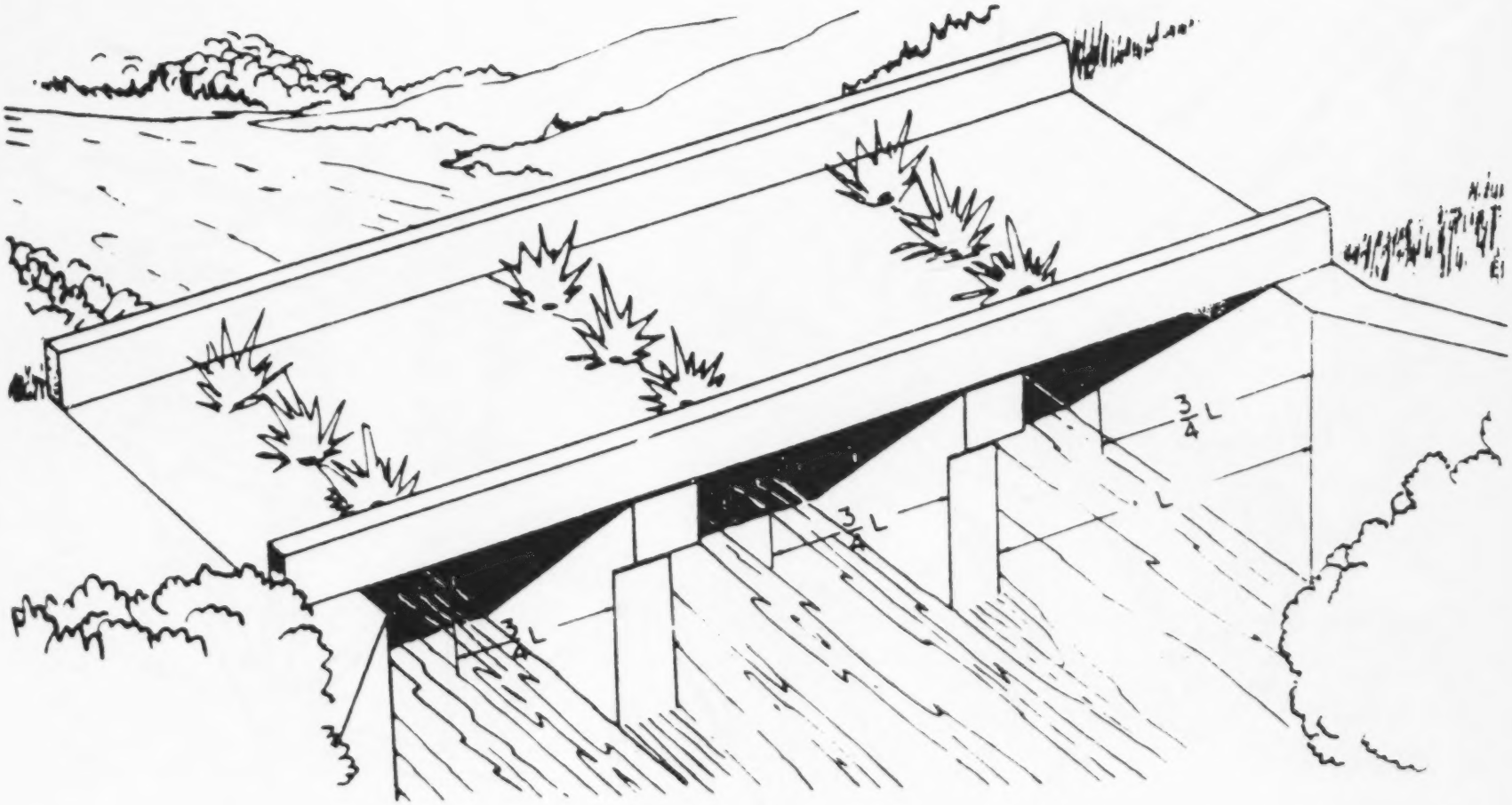
EXPLOSIVE



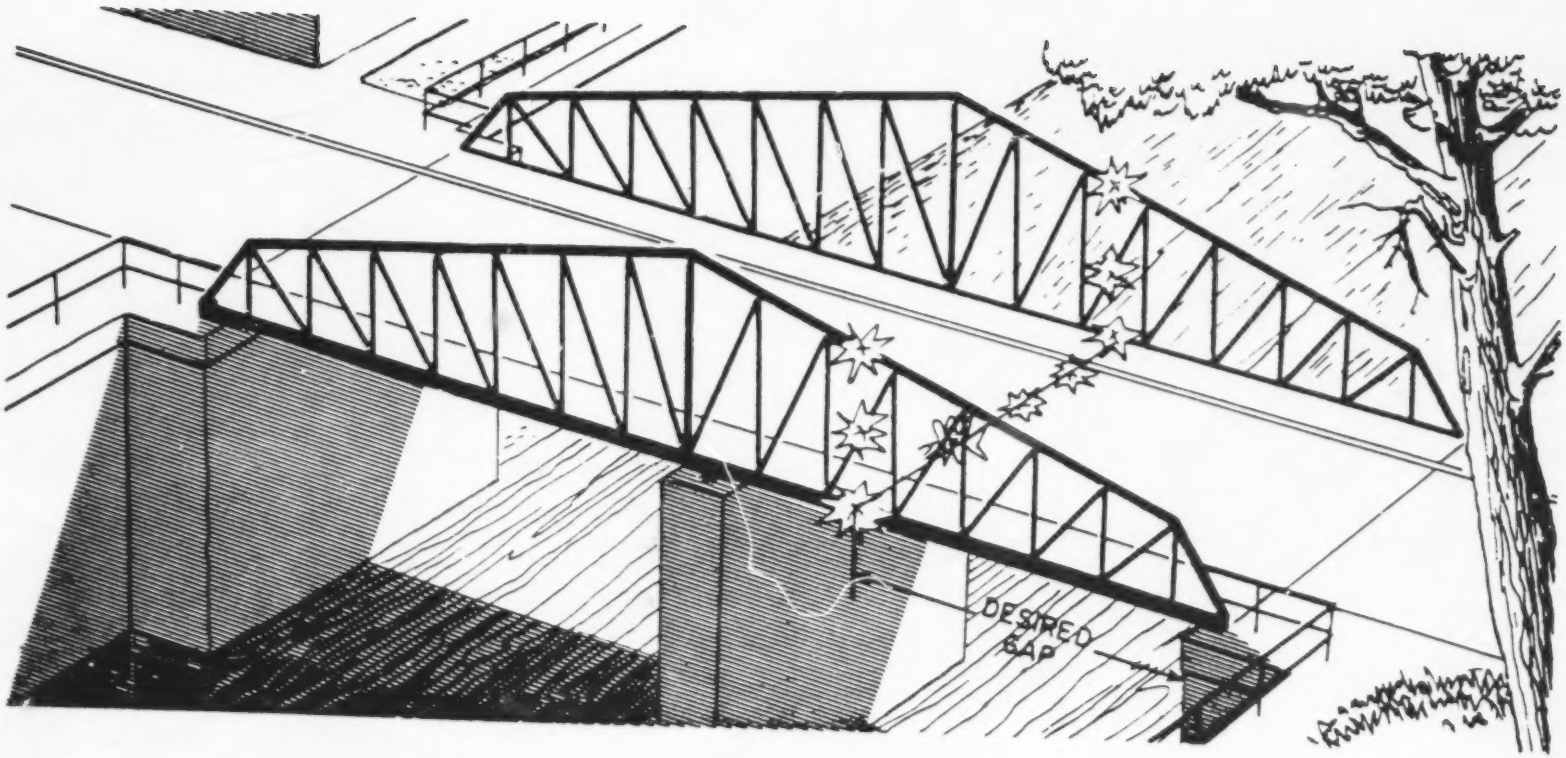




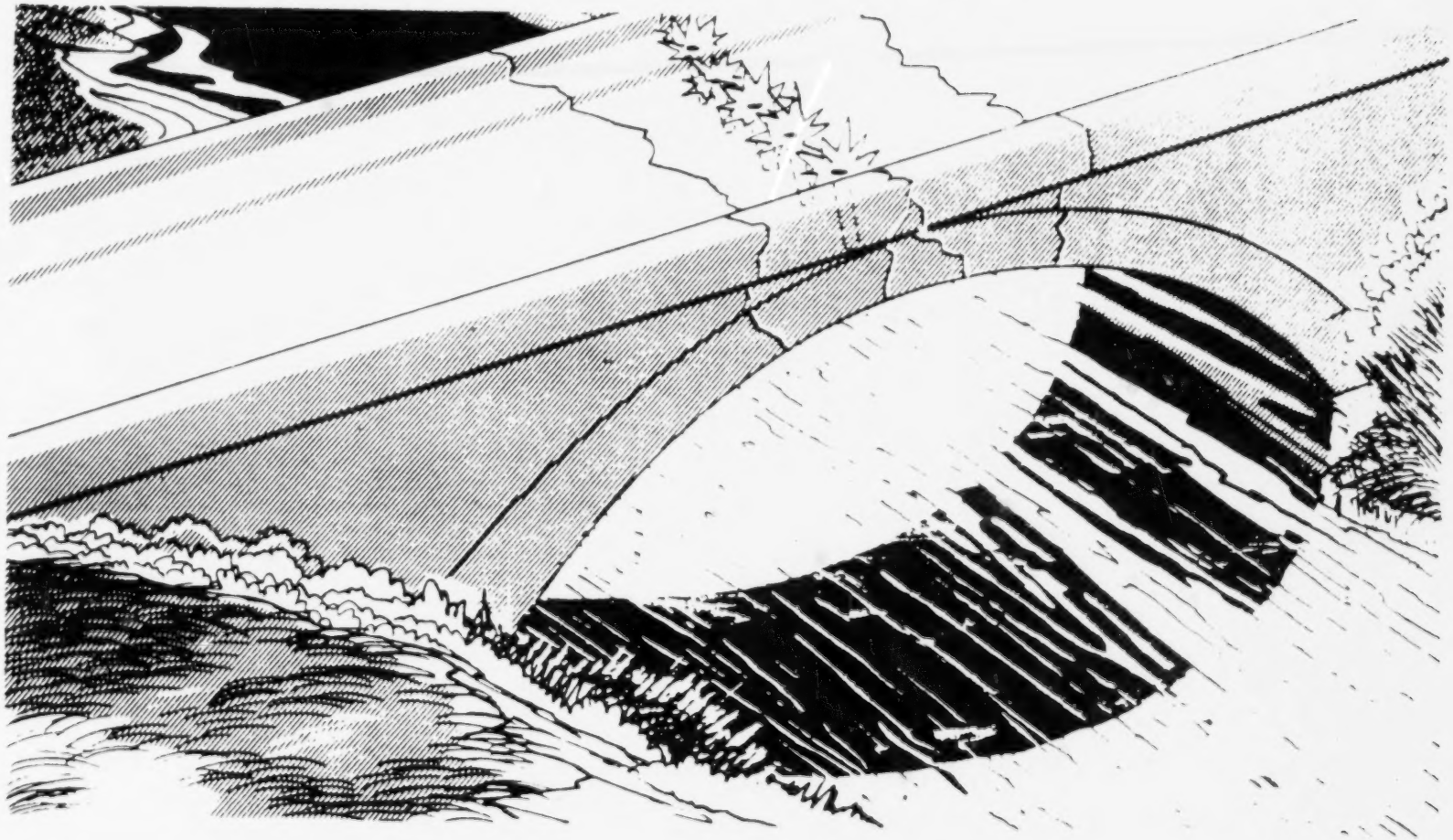

DETONATING CORD
ELECTRICAL WIRE
FLOW

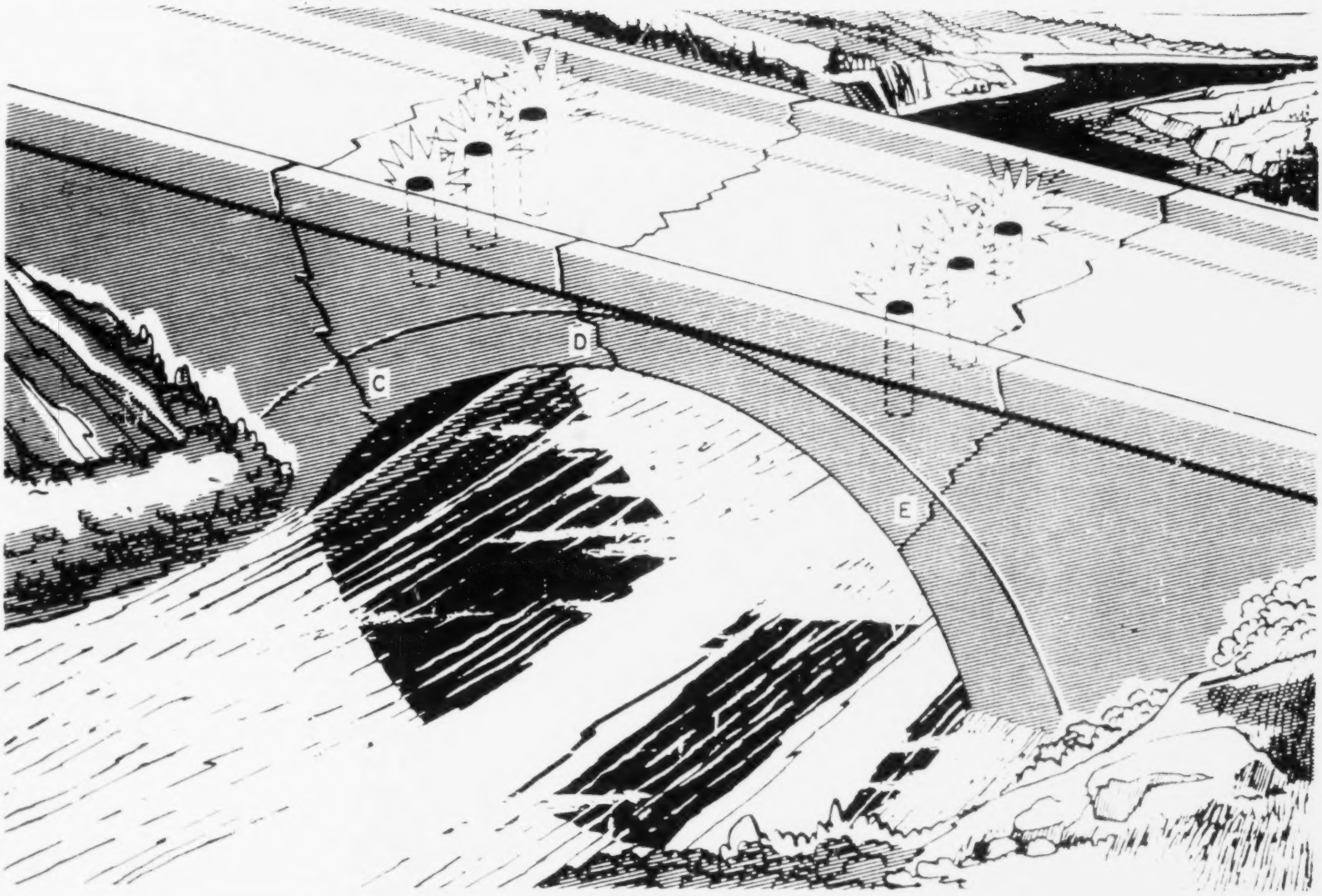


DESTRUCTION OF CONTINUOUS SPAN CONCRETE SLAB BRIDGE.

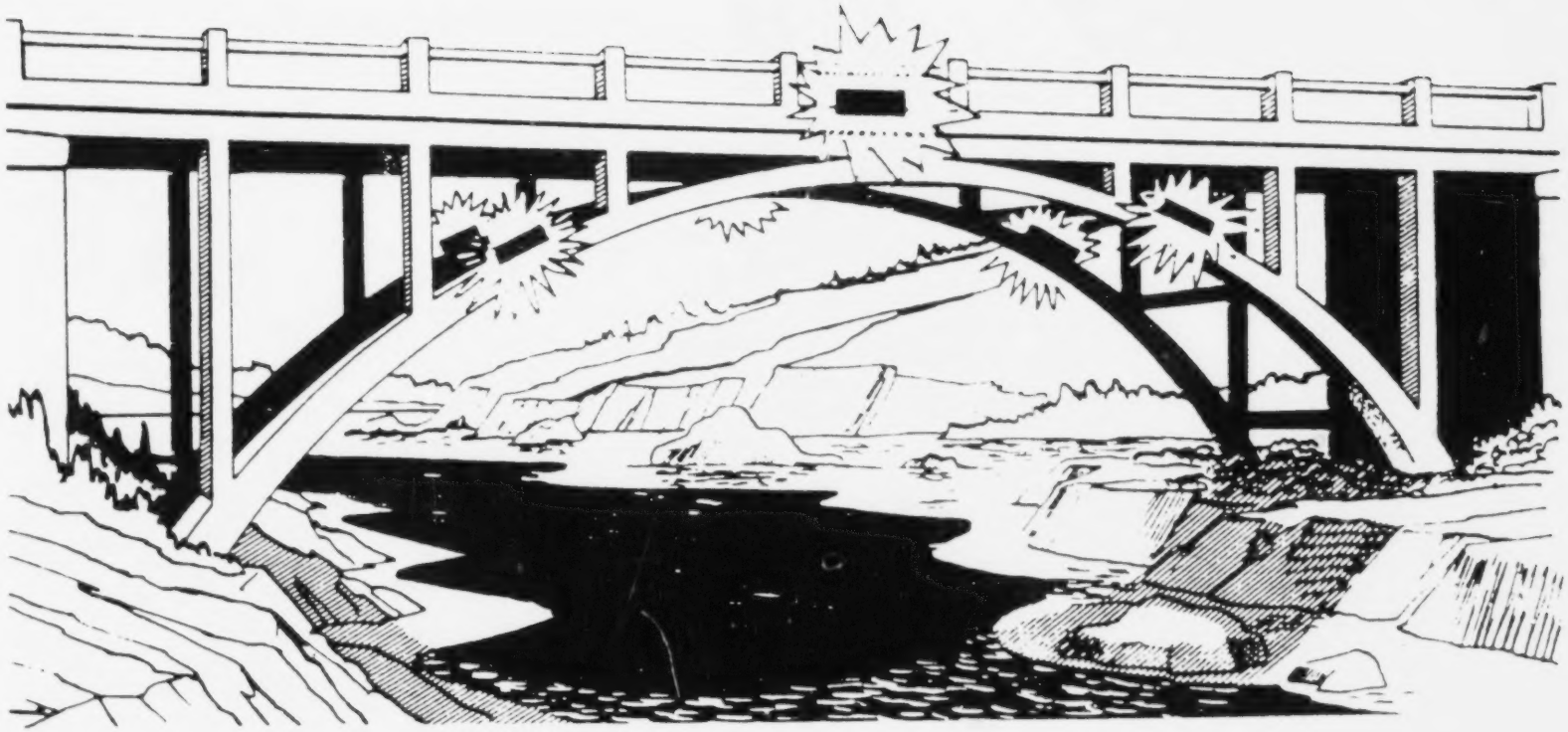

DESIRED
GAP

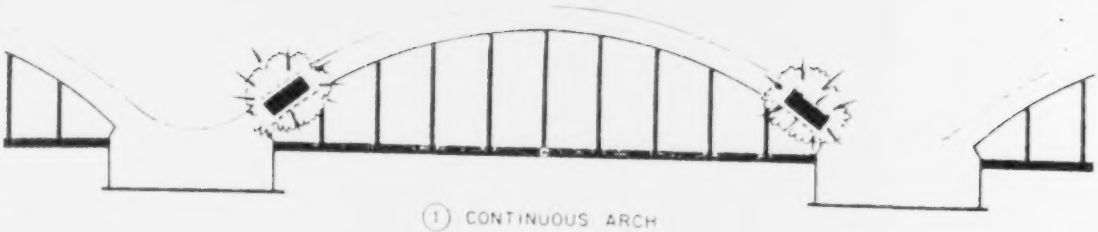
Breaching by crown charges on filled spandrel arch bridge.



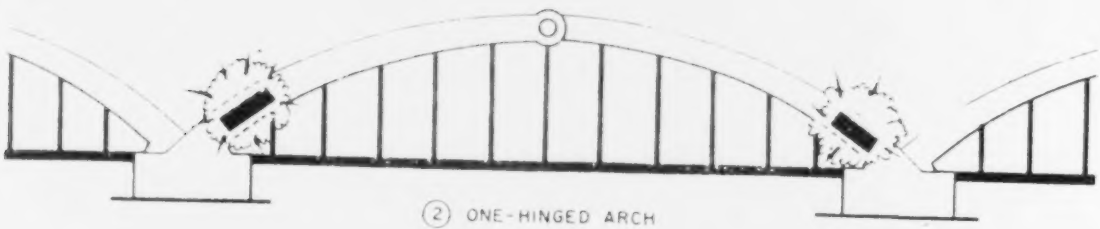


BREACHING BY HAUNCH CHARGES ON FILLED SPANDREL ARCH BRIDGE.

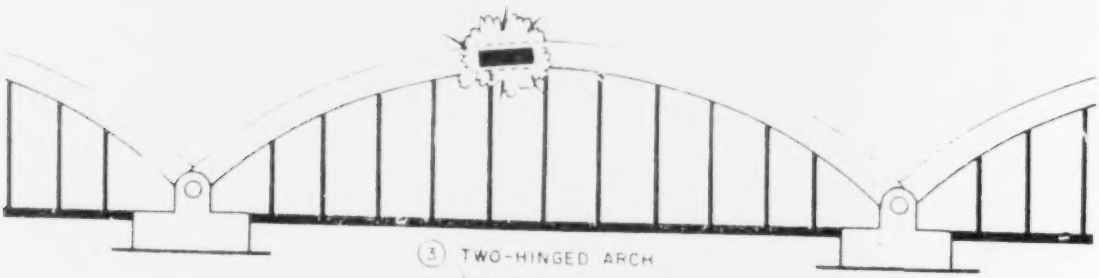




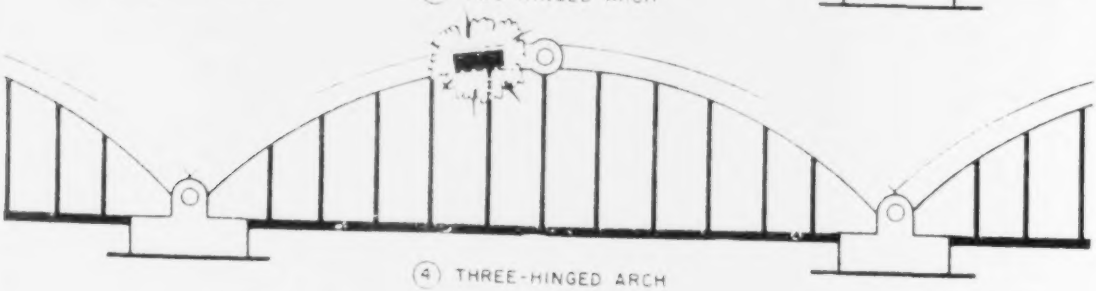
(1) CONTINUOUS ARCH



(2) ONE-HINGED ARCH



(3) TWO-HINGED ARCH



(4) THREE-HINGED ARCH

.6. DEMOLITION RECONNAISSANCE

a. Complete

b. Accurate

c. Easily understood

7. OBSTACLE FOLDER

a. Location of the target

b. Supply of munition and stores

c. Technical instructions for the preparations

d. Handover/takeover procedures

e. Demolition report

8. THREE COMMANDERS

a. Authorized commander

b. Demolition guard commander

c. Demolition firing party commander

DEMOLITION RECONNAISSANCE REPORT

Information required. DA Form 2203-R should contain the following information:

(1) A situation map sketch showing the relative position of the objects to be demolished, the surrounding terrain features, and the coordinates of the objects keyed to existing maps.

(2) A list of all unusual features of the site, giving the location on the situation map sketch.

(3) A plan and a side-view sketch of the demolition object showing overall dimensions, lines of cut, and demolition chambers. For example, if a bridge is to be destroyed, a sketch showing the overall dimensions of its critical members is necessary.

(4) For each member to be cut, a plan and cross-section sketch showing details of chambers, lines of cut, and location of charges, with relatively accurate dimensions of each member, quantities of explosives, and method of ignition.

(5) A sketch showing firing circuits and firing point.

(6) A bill of explosives showing the quantity and types required.

(7) A list of all equipment, including transportation, required for the demolition.

(8) An estimate of time and labor required for preparing the demolitions and placing the charges.

(9) An estimate of time and labor required for arming the charges and firing the demolition.

(10) An estimate of time, labor, and equipment required to bypass the obstacle. Specify the location and method. Include supplementary obstacles, such as mining that may be required.

Listed below are the minimum requirements for the completion of the Demolition Reconnaissance Report (DA Form 2203-R) by item number:

Item

1. FILE NO. (Given by higher headquarters or completed at higher headquarters when submitted).

2. DML RECON RPT NO. (Same as item 1 or determined at company level IAW SOP's).

3. DATE (The date the reconnaissance was performed).

4. TIME (Time arrived at target site — local or Zulu time.)

5. RECON ORDERED BY: (self explanatory)

6. PARTY LEADER (NCOIC or OIC of reconnaissance party who was physically at the site when the reconnaissance was conducted.)

7. MAP NAME (Taken off of map sheet (1:50,000).)
   SCALE (Taken off of map sheet (1:50,000).)
   SHEET # (Taken off of map sheet (1:50,000).)
   SERIES # (Taken off of map sheet (1:50,000).)

8. TARGET AND LOCATION (Brief target description (i.e. Highway Bridge, Railroad Bridge, Road Crater, ETC) and distance and direction from an identifiable terrain feature (i.e. 2 miles east of Hanesville on RT 2, or 2 kilometers south of RJ RT 2 and RT 17 on RT 17.)

9. TIME OBSERVED (The time you last saw the target or departed the site).

10. COORDINATES (Complete 8 digit coordinates of the target) (i.e. 32 U VT 75864951).

11. GENERAL DESCRIPTION (attach sketches) (When applicable include type of construction, width of roadway, number of lanes or tracks, type of pavement, number of bridge spans, condition of span or entire bridge, and bridge classification) (i.e. Prestressed concrete T-beam bridge, 4 simple spans, supported by 6 concrete columns, 2 lanes. Total bridge 140' long, 30' wide roadway, overall width 36', 16' high, Class 80, very good condition.)

12. NATURE OF PROPOSED DEMOLITION (Attach sketches) (State how much of the target will be destroyed, number and type of charges used (tamped or untamped), where charges are placed, type of firing system to be used. State charge placement priority if feasible. Sketch will contain critical dimensions.)

13. UNUSUAL FEATURES OF SITE (Include any special features of the target or site which might affect the method of demolitions. (i.e. high tension lines, radar installation, radio or TV antenna, power station, etc.) Give details which may affect the security of the target and the demolition work party.)

14. EXPLOSIVES REQUIRED (Determine availability)

a) Types (Determine availability of explosives prior to reconnaissance, TNT, M112, M186, Dynamite, 40# cratering charge, 15# or 40# shaped charge.)

b) Quantity (Self explanatory -- calculations written clearly are placed on one of the attached sketches or a separate piece of paper.)

c) Caps -- Electric (Self explanatory)
Nonelectric (Self explanatory)

d) Detonating Cord (Self explanatory)

e) Time fuse (Self explanatory)

f) Fuse Lighters (Self explanatory)

g) Firing Wire (Self explanatory)

15. EQUIPMENT AND TRANSPORT REQUIRED (Determine availability of equipment and transportation by type). (Specify the **amount** and **type** of transportation required, and the **amount** or **number** of items of supplies and/or equipment required to prepare the target for demolition). (i.e. 2 ea 5 ton dump trucks, 1 ea ram set w/50 ea cartridges, 2 ea post hole diggers, 2 ea demolition sets, 10 lb 16d nails, 12 ea 2" x 4" x 8' lumber) (Troops can not ride in vehicles transporting explosives.)

16. PERSONNEL AND TIME REQUIRED FOR: (Determine availability (i.e. will squad, platoon, etc. be setting up the target for demolition) then the amount of time can be calculated for:

a) PREPARING AND PLACING THE CHARGES

b) ARMING AND FIRING THE DEMOLITION Depends upon the distance between firing points and firing systems used. **Maximum** would be 2-NCO's, 2-Men, and 2 minutes time limit).

17. TIME, LABOR AND EQUIPMENT FOR BYPASS; SPECIFY LOCATION AND METHOD (Your estimate of the time, number of men, amount and type of equipment required to construct a bypass at or near the destroyed target (specify distance and direction), or to replace the target. (Whichever is easier). Also direction, distance and time required to drive around the obstacle.)

NOTE: It is considered that a minimum gap of 90 feet must be obtained to create an effective obstacle. This is considered to be, at the present state of technology, the maximum gap that can be spanned using hasty bridging equipment.

A. **SITUATION MAP SKETCH (INCLUDE PRINCIPAL TERRAIN FEATURES; IMMEDIATE AVENUES OF APPROACH; OBSERVATION AND COVER; MAP COORDINATES).**

Use an arrow to indicate direction.

SITUATION SKETCH

AREA SKETCHED SHOULD INCLUDE:

1. Minimum safe distance in all directions from the target.
2. Target circled and indicated by coordinates.
3. Avenues of approach to the target. Indicate route numbers, direction of cities or towns.
4. Rivers or streams, to indlude name, direction of flow, and velocity in feet per second (fps).
5. Terrain features, to include observation points, cover and concealment, swampy areas, deep valleys, etc.
6. Firing Point.
7. Notes on possible bypasses in the vicinity of the target.

Situation map sketch.

B. LINE DRAWING OR OBJECT TO BE DEMOLISHED (SHOW CRITICAL OVER-ALL DIMENSIONS AND PLACEMENT OF CHARGES).

SIDE VIEW OR LINE DRAWING

1. Dimensions of proposed target.
2. Number and length of bridge spans.
3. Height of bridges from ground or water.
4. Depth of water.
5. Placement of charges (Indicate priority charges, if any).
6. Sketch of proposed firing system (May be a separate sketch).

Drawing of object to be demolished.

C. CROSS-SECTIONS OF MEMBERS TO BE CUT (WITH DIMENSIONS).

SKETCH OF CRITICAL SECTION

(Member(s) to be cut).

1. Shape.
2. Dimensions.
3. Type of material.
4. Placement of charges.

COMPUTATIONS

Note whether formula or demolition card is used for computations.

1. Material factors.
2. Tamping factors.
3. Number of charges.
4. Total amount of explosives.
5. Type of explosive.
6. Conversion factors (if used).

Cross-sections of members to be cut (with dimensions).

Reserved Demolitions

1. Demolition targets are chosen on the basis of cutting _____ into the area of operations.

   a. Steel bridges
   b. High speed avenues of approach
   c. Abatis
   d. All of the above.

2. What are the two types of demolition targets?

   a. Preliminary and Hasty
   b. Reserved and Deliberate
   c. Deliberate and Hasty
   d. Preliminary and Reserved

3. Reserved targets can only be fired only on order of _____

   a. Authorized Commander
   b. Guard Commander
   c. Firing Party Command
   d. All of the above

4. Responsibility for destroying the bridge within his sector is delegated to _____.

   a. Firing Party Commander
   b. Demolition Guard Commander
   c. Bde Tactical Commander
   d. All of the above.

5. The two main elements of a bridge demolition are?

   a. Demolition Guard and Authorized Commander
   b. Firing Part and Authorized Commander
   c. Demolition Guard and Firing Party
   d. None of the above

6. A list of all units to use the bridge is furnished to the _____.

   a. Authorized Commander
   b. Demolition Guard Commander
   c. Firing Party Commander
   d. Tactical Commander

7. Liason officer act as _____of the division commander

   a. Second in command
   b. Personal Respresentative
   c. Final approving authority
   d. None of the above

EXPLANATORY TERMS AND SYMBOLS

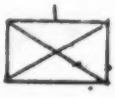
BRITISH	AMERICAN
BM (Brigade Major)	Mixture of Chief of Staff, XO and Operations Officer
Recon Regiment RTR (Royal Tank Regiment)	Armored Cav Regiment
LO	LNO (Liason Officer)
Field Squadron	Engineer Company plus
Field Troop	Engineer Platoon plus
Feret	Light Armored Vehicle (wheeled)
Battle Group	Task Force
CRA (Commander, Royal Artillery)	Division Artillery Commander
DF	Pre-planned artillery fire missions
Seniority Roll	Order of command list
Sapper	An engineer

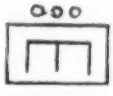
COMMON TERMS AND SYMBOLS

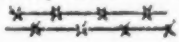
UK ~~NATO~~ Form 4012B - Orders to Demolition Firing Party Commander
~~NATO~~ Form 4012C - Orders to Demolition Guard Commander

Infantry Division

Infantry Brigade

Infantry Company, Demolition Guard 

Engineer Platoon, Demolition Firing Party 

Barrier Wire 

Craters

Minefield

Serial No. B 173 Security Classification CLASSIFICATION

ORDERS TO THE DEMOLITION GUARD COMMANDER

Notes : 1. This form will be completed and signed before it is handed to the Commander of the Demolition Guard.

2. In completing the form, all spaces must either be filled in or lined out.

3. The officer empowered to order the firing of the demolition is referred to throughout as the " Authorized Commander ".

From CG 52d Mech Div To CO Co B, 1-81, 2d Bde 52d Mech Div

PART I—PRELIMINARY INSTRUCTIONS

1. *a.* Description of target RC Road Bridge

b. Location :

Map Name and Scale KLUTZ, 1:50,000 Sheet No. L2314

Grid Reference 632179

c. Code word or code sign (if any) of demolition target DOGLEG

2. The Authorized Commander is CO 2d Bde, 52d Mech Div (give appointment only). If this officer should delegate his authority you will be notified by one of the methods shown in paragraph 4, below.

3. The DEMOLITION FIRING PARTY COMMANDER has been/will be provided by 2 Plt, CoC, 52d Engr Bn

4. All messages, including any code words or code signs (if any) used in these orders, will be passed to you by :

a. normal command wireless net, or

b. special liaison officer with communications direct to the Authorized Commander, or

c. ~~telephone by the Authorized Commander, or~~

d. ~~the Authorized Commander personally, or~~

e. _____

(Delete those NOT applicable)

Note : All orders sent by message will be prefixed by the code word or code sign (if any) at paragraph 1*c* and *all* such messages must be acknowledged.

PART II—CHANGING STATES OF READINESS

5. The demolition will be prepared initially to the State of Readiness 1 by 1800 hours, on 7 Jan 72 (date).

6. On arrival at the demolition site, you will ascertain from the Commander of the Demolition Firing Party the estimated time required to change from State " 1 " (SAFE) to State " 2 " (ARMED). You will ensure that this information is passed to the Authorized Commander and is acknowledged.

7. Changes in the State of Readiness from State " 1 " (SAFE) to State " 2 " (ARMED) or from State " 2 " to State " 1 " will be made only when so ordered by the Authorized Commander. However, the demolition may be ARMED in order to accomplish emergency firing when you are authorized to fire it on your own initiative.

8. A record of the changes in the State of Readiness will be entered by you in the table below, and on the firing orders in possession of the commander of the demolition firing party.

State of Readiness ordered " 1 " (SAFE) or " 2 " (ARMED)	Time and date change to be completed	Authority	Time and date of receipt of order

Note : If the order is transmitted by an officer in person, his signature and designation will be obtained in the column headed " Authority ".

9. You will report completion of all changes in the State of Readiness to the Authorized Commander by the quickest means.

PART III—ORDERS FOR FIRING THE DEMOLITION

10. The order for firing the demolition will be passed to you by the Authorized Commander.

11. On receipt of this order you will immediately pass it to the Commander of the Demolition Firing Party on his demolition orders form (" Orders to the Demolition Firing Party Commander ").

12. After the demolition has been fired you will report the results immediately to the Authorized Commander.

13. In the event of a misfire or only partially successful demolition you will give the firing party protection until such time as it has completed the demolition and report again after it has been completed.

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PART IV—EMERGENCY FIRING ORDERS

Notes : 1. One sub-paragraph of paragraph 14 must be deleted.
2. The order given herein can only be altered by the issue of a new form, or, in emergency by the appropriate order (or code word if used) in Part V.

14. *a.* ~~You will order the firing of the demolition only upon the order of the Authorized Commander; or~~

b. If the enemy is in the act of capturing the target you will order the firing of the demolition on your own initiative.

PART V—CODE WORDS (IF USED)

	Action to be Taken	Code Word
a.	Change State of Readiness from " 1 " to " 2 " (see paragraph 7)	POPCORN
b.	Change State of Readiness from " 2 " to " 1 " (see paragraph 7)	CANDY
c.	Fire the demolition (see paragraph 10)	LOLLIPOP
d.	Paragraph 14.*a.* is now cancelled. You are now authorized to fire the demolition if the enemy is in the act of capturing it.	SNUTTERBUG
e.	Paragraph 14.*b.* is now cancelled. You will order the firing of the demolition only upon the order of the Authorized Commander.	TURTLENECK
f.	Special authentication instructions, if any.	———

PART VI

Signature of officer issuing these orders Alan P. Jones

Name (printed in capital letters) ALAN P. JONES

Rank MG Appointment CG 52d Mech Div

Time of issue 1500 hours, 6 Jan 72 (date).

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PART VII—DUTIES OF THE COMMANDER OF THE DEMOLITION GUARD

15. You are responsible for :—

a. Command of the demolition guard and the demolition firing party.

b. The safety of the demolition from enemy attack or sabotage.

c. Control of traffic and refugees.

[redacted]

g. Keeping the Authorized Commander informed of the operational situation at the demolition site.

16. You will acquaint yourself with the orders issued to the Commander of the Demolition Firing Party and with the instructions given by him.

17. The Demolition Guard will be so disposed as to ensure at all time complete all-round protection of the demolition against all types of attack or threat.

18. The commander of the Demolition Firing Party is in technical control of the demolition. You will agree with him the site of your HQ and of the firing point. These should be together whenever practicable. When siting them you must give weight to the technical requirements of being able to view the demolition and have good access to it from the firing point.

19. You will nominate your deputy forthwith and compile a seniority roster. You will ensure that each man knows his place in the roster, understands his duties and knows where to find this form if you become a casualty or are unavoidably absent. The seniority roster must be made known to the Commander of the Demolition Firing Party.

20. Once the State of Readiness " 2 ARMED " has been ordered, either you or your deputy must always be at your HQ so that orders can be passed on immediately to the Commander of the Demolition Firing Party.

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ORDERS TO THE COMMANDER, DEMOLITION FIRING PARTY:	SERIAL NUMBER

NOTE: Parts I, II and III will be completed and signed before this form is handed to the commander of the Demolition Firing Party. Paragraphs 4 and 5 can only be altered by the authority issuing these orders. In such cases a new form will be issued and the old one destroyed.

FROM:	TO:
CG 52d Mech Div	Plt Ldr, 2d Plt, Co C, 52d Engr Bn.

PART I - ORDERS FOR PREPARING AND CHARGING THE DEMOLITION TARGET

1a. DESCRIPTION

130 ft 3 span SS RC road bridge

b. LOCATION			c. CODE WORD OF DEMOLITION TARGET (If any)
MAP NAME AND SCALE	SHEET NO.	GRID REFERENCE	
KLUTZ, 1:50,000	L23/4	632179	DOGLEG

d. ATTACHED PHOTOGRAPHS AND SPECIAL TECHNICAL INSTRUCTIONS

Demolition Recon Report Nr 51

2. THE DEMOLITION GUARD IS BEING PROVIDED BY (Unit) Co B, 1-81, 2d Bde

3. YOU WILL PREPARE AND CHARGE THE DEMOLITION TARGET TO THE STATE OF READINESS 1 BY 1800 HOURS ON (Date) 7 Jan 72

ANY CHANGES MAY ONLY BE MADE ON THE ORDER OF THE ISSUING AUTHORITY, OR BY THE OFFICER DESIGNATED IN PARAGRAPH 4d AND WILL BE RECORDED BELOW.

STATE OF READINESS ORDERED "1(SAFE)" or "2(ARMED)"	TIME AND DATE CHANGE TO BE COMPLETED	AUTHORITY	TIME AND DATE OF RECEIPT OF ORDER

NOTE: All orders received by message will be verified by the code word at Paragraph 1c. If the order is transmitted by an officer in person, his signature and designation will be obtained in the Column headed "Authority".

PART II - ORDERS FOR FIRING

NOTE: The officer issuing these orders will strike out the subparagraphs of Paragraphs 4 and 5 which are not applicable. When there is a demolition guard, Paragraph 4 will always be used and Paragraph 5 will always be struck out.

4a. ~~YOU WILL FIRE THE DEMOLITION AS SOON AS YOU HAVE PREPARED IT.~~

b. ~~YOU WILL FIRE THE DEMOLITION AT _____ HOURS ON (Date) _____.~~

c. ~~YOU WILL FIRE THE DEMOLITION ON RECEIPT OF THE CODE WORD _____.~~

d. YOU WILL FIRE THE DEMOLITION WHEN THE OFFICER WHOSE DESIGNATION IS CO Co B, 1-81, 2d Bde, 52d Mech Div HAS SIGNED PARAGRAPH 8 BELOW.

EMERGENCY FIRING ORDERS (ONLY applicable when there is NO demolition guard)

5a. YOU WILL ~~NOT FIRE THE DEMOLITION IN ANY CIRCUMSTANCES EXCEPT AS ORDERED IN PARAGRAPH~~ 4 ABOVE.

b. YOU WILL FIRE THE ~~DEMOLITION ON YOUR OWN INITIATIVE IF THE ENEMY IS IN THE ACT OF CAPTURING IT.~~

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PART III - ORDERS FOR REPORTING

6. AFTER FIRING THE DEMOLITION YOU WILL IMMEDIATELY REPORT RESULTS TO THE OFFICER WHO ORDERED YOU TO FIRE. IN THE EVENT OF A PARTIAL FAILURE YOU WILL WARN HIM, AND IMMEDIATELY CARRY OUT THE WORK NECESSARY TO COMPLETE THE DEMOLITION

7. FINALLY, YOU WILL IMMEDIATELY REPORT THE RESULTS TO YOUR UNIT COMMANDING OFFICER (See Paragraph 13.)

SIGNATURE OF OFFICER ISSUING THESE ORDERS	NAME (In capitals) ALAN P. JONES DESIGNATION CG 82d Mech Div	TIME OF ISSUE 1500	DATE OF ISSUE 6 Jan 72
Alan P. Jones			

PART IV - ORDER TO FIRE

8. BEING EMPOWERED TO DO SO, I ORDER YOU TO FIRE NOW THE DEMOLITION DESCRIBED IN PARAGRAPH 1.

SIGNATURE	NAME (In capitals) DESIGNATION CO CoB, 1-81	TIME	DATE

PART V - GENERAL INSTRUCTIONS (Read These Instructions Carefully)

9. YOU ARE IN TECHNICAL CHARGE OF THE PREPARATION, CHARGING AND FIRING OF THE DEMOLITION TARGET DESCRIBED. YOU WILL NOMINATE YOUR DEPUTY FORTHWITH AND COMPILE A SENIORITY ROSTER OF YOUR PARTY. YOU WILL INSURE THAT EACH MAN KNOWS HIS PLACE IN THE ROSTER, UNDERSTANDS THESE INSTRUCTIONS, AND KNOWS WHERE TO FIND THIS FORM IF YOU ARE HIT OR UNAVOIDABLY ABSENT. YOU WILL CONSULT WITH THE COMMANDER OF THE DEMOLITION GUARD ON THE SITING OF THE FIRING POINT.

10. YOU MUST UNDERSTAND THAT THE COMMANDER OF THE DEMOLITION GUARD (where there is one) IS RESPONSIBLE FOR:
   a. OPERATIONAL COMMAND OF ALL THE TROOPS AT THE DEMOLITION SITE. (You are therefore under his command.)
   b. PREVENTING THE CAPTURE OF THE DEMOLITION SITE, OR INTERFERENCE BY THE ENEMY WITH DEMOLITION PREPARATIONS.
   c. CONTROLLING ALL TRAFFIC AND REFUGEES.
   d. GIVING YOU THE ORDER TO CHANGE THE STATE OF READINESS FROM "1(SAFE)" TO "2(ARMED)" OR BACK TO "1(SAFE)" AGAIN. YOU WILL INFORM HIM OF THE TIME REQUIRED FOR SUCH A CHANGE.
   e. PASSING TO YOU THE ACTUAL ORDER TO FIRE.

11. WHEN THERE IS NO DEMOLITION GUARD AND YOU ARE INSTRUCTED IN PARAGRAPH 4 TO ACCEPT THE ORDER TO FIRE FROM SOME PARTICULAR OFFICER, IT IS IMPORTANT THAT YOU ARE ABLE TO IDENTIFY HIM.

12. IF YOU GET ORDERS TO FIRE, OTHER THAN THOSE LAID DOWN IN PARAGRAPH 4, YOU SHOULD REFER THEM TO THE DEMOLITION GUARD COMMANDER OR, IF THERE IS NO DEMOLITION GUARD COMMANDER, TO YOUR IMMEDIATE SUPERIOR. IF YOU CANNOT DO THIS, YOU WILL ONLY DEPART FROM YOUR WRITTEN INSTRUCTIONS WHEN YOU ARE SATISFIED AS TO THE IDENTITY AND OVERRIDING AUTHORITY OF WHOEVER GIVES YOU THESE NEW ORDERS, AND YOU WILL GET HIS SIGNATURE IN PARAGRAPH 8 WHENEVER POSSIBLE.

13. THE REPORT TO YOUR UNIT COMMANDING OFFICER, AS CALLED FOR IN PARAGRAPH 7, SHOULD CONTAIN THE FOLLOWING INFORMATION (where applicable):
   a. IDENTIFICATION REFERENCE OF DEMOLITION.
   b. MAP REFERENCE.
   c. TIME AND DATE WHEN DEMOLITION WAS FIRED.
   d. EXTENT OF DAMAGE ACCOMPLISHED, INCLUDING:
      ESTIMATED WIDTH OF GAP)
      NUMBER OF SPANS DOWN) IN CASE OF A BRIDGE
      SIZE AND LOCATION OF CRATERS IN A LOAD OR RUNWAY
      MINES LAID.
   e. SKETCH SHOWING EFFECT OF DEMOLITION.

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